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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,309	06/25/2003	Thomas Klenk	331.1041	5228
23280	7590	09/23/2004	EXAMINER	
DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			PEAVEY, ENOCH E	
			ART UNIT	PAPER NUMBER
			3676	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/603,309	KLENK ET AL.	
	Examiner	Art Unit	
	Enoch E Peavey	3676	<i>NW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-11,13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3,5,12 and 15-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

I. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A. Claims 1, 2, 4, 8-11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 1893773, ("DE 773").

1. DE 773 discloses an axial shaft seal (Fig. 1) disposed between a housing wall (13) and a rotating shaft (a).

2. The axial shaft seal comprises an outer ring (near4) insertable into the housing wall in a stationary and sealing manner (Fig. 1).

3. The outer ring (3) including a sleeve (generally folded portion near4) including a polymer material extending radially inward and having a spring bellows form (see curved cross-section).

4. A radially inward end portion (contacting inner ring) of the sleeve having a first sealing surface (at its interior).

5. There is an inner ring (radially inner with respect to balls) connectable to the shaft (1) in a non-twisting and sealing manner and including a ring flange (circumferential inner portion contacting the sealed surface) extending radially outward so as to provide a second sealing surface for axially mating the first sealing face (Fig. 1).

6. The inward end portion of the sleeve includes circular ring (generally v shaped in cross-section) extending in a radial direction.

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7. The circular ring (generally v shaped in cross-section) includes one or more sealing surfaces (e.g. 14).
8. The sleeve includes a folded bellows (generally curved). The bellows open toward a lubricant side of the seal (Fig. 2).
9. The outer ring (near 4) includes a reinforcement member generally at v2).
10. The inner ring is made of metal (see cross hatching).

Claim Rejections - 35 USC § 103

II. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

B. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 773 in view of Tellier, US No. 4,998,740 ("Tellier").

1. DE 773 does not teach coating the sealing surface with a friction reducing coating such as PTFE.
2. Tellier teaches such a coating in order to accommodate adverse operation conditions (Col. 1, lines 46-47).
3. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Johnston as taught by Tellier in order to accommodate adverse operating conditions.
adverse operation conditions.

Response to Arguments

III. The rejection based on the Paulsen and Johnson references have been overcome by the amendment submitted June 30, 2004. Applicant argues that Paulsen does not disclose a curved bellows formed portion, formed so as to provide a spring. Examiner Agrees. Applicant further points out that Johnston does not disclose a curved bellows portion extending radially inward over its entire length. Examiner agrees. However, DE 1893773, does show these features and therefore forms the basis of the new rejection.

Allowable Subject Matter

IV. Claims 3, 5, 12 and 15-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

V. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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VI. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enoch E Peavey whose telephone number is 305 1977. The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 am.

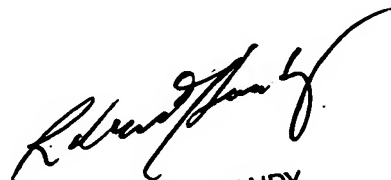
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Enoch E Peavey

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September 19, 2004


ROBERT J. SANDY
PRIMARY EXAMINER